



# Air Quality and Land Use Handbook: A Community Health Perspective

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Lynn Terry, Deputy Executive Officer  
California Air Resources Board

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California Environmental Protection Agency

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 **Air Resources Board**



# Handbook Overview

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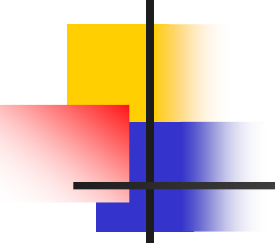
- Provides information on localized air quality impacts
- Recommends providing appropriate separation when siting new sensitive land uses
- Recommendations do not substitute for site specific information
- Handbook is advisory, not regulatory



# Need for Handbook

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- Some past land use decisions have resulted in elevated localized exposures
- Key studies link traffic emissions to health impacts

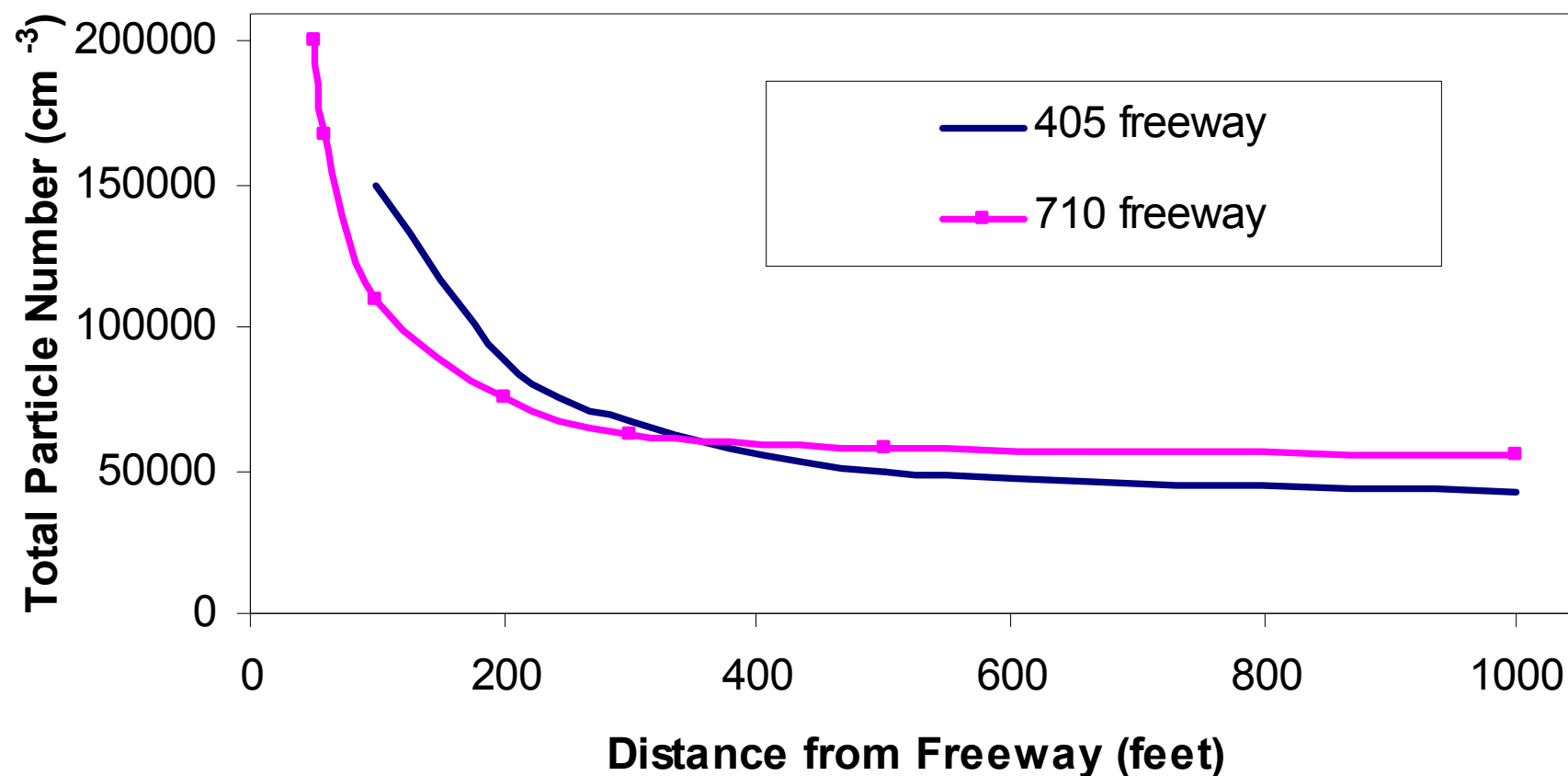


# Traffic Studies Linked Health Effects to Proximity

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- Numerous studies show elevated health risk near high traffic -- especially truck traffic
- Respiratory effects found in children include reduced lung function, increased asthma symptoms, and hospitalizations
- Diesel particulate matter contributes to cancer risk and premature mortality

# Freeway Exposure Falls Rapidly With Distance



*Atmospheric Environment, Zhu (2002)*



# Development of Recommendations

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- Evaluated available scientific information on health effects and impacts of distance
- Used cancer risk analyses and information on non-cancer health effects
- Identified data limitations and uncertainties
- Recognized that uniform risk-based threshold is impractical
- Tailored recommendations to minimize highest exposure for each individual category



# Summary of Recommendations

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- Avoid siting new sensitive land uses closer than the following distances

<u>Source Category</u>	<u>Distance</u>
Freeways & High Traffic Roads	500 feet
Distribution Centers	1,000 feet
Major Service/Maintenance Rail Yard	1,000 feet
Chrome Platers	1,000 feet
Perc Drycleaners	300-500 feet
Gas Dispensing Facilities	300 feet



## Summary of Recommendations (cont.)

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- General Recommendations
  - Ports
  - Refineries
  - Sources of dust problems and odor complaints



# Handbook Recommendations and Transit-Oriented Development

- Siting recommendations can be compatible with TOD
- Handbook adds important TOD design consideration
- ARB recommendations should be considered with other factors



# Smart Siting





# Outreach Plan

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- Partner with local air districts to:
  - Encourage land use agencies to consider Handbook recommendations
  - Provide technical assistance to local government agencies
  - Several districts have already agreed to collaborate



# To Obtain a Copy of the Handbook

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- The Air Quality and Land Use Handbook will be posted on the ARB website at:  
<http://www.arb.ca.gov/ch/landuse.htm>